National Institute of Environmental Health Sciences

Contamination of drinking water sources during the rainy season in an urban post-conflict community in Guinea Bissau: Implications for sanitation priority

Author(s): Colombatti R, Vieira CS, Bassani F, Cristofoli R, Coin A, Bertinato L, Riccardi F
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Abstract:

Since the 1998 civil warcholera outbreaks and waterborne infections have been a major cause of morbidity and mortality during the rainy season in Guinea Bidsau. Our survey aims at: (1) describing the distribution, characteristics and use of water sources and sewage facilities in a central area of the capital city of Bissau; (2) determining the microbiological quality of drinking water during the rainy season. After mapping of the Cuntum 3 study area, water sources' and latrines' location, characteristics and use were determined by visual inspection and interviews with householders. Microbiological analyses were peformed from water sources for evaluation of total Coliforms, E. coli, Enterococcus faecalis. Twelve water sources (9 wells, 3 taps) and 15 latrines were identified and used by 444 inhabitants. Water sources and latrines were at less than 5 meters distance apart. Wells were self-built, hand-dug, shallow (4-6 meters), unprotected. Taps were located outdoor. Latrines were self-built, open air, unprotected. None of the houses had a bathroom. Maintenance of wells, taps and latrines is not performed on regular basis and well's handling habits are not safe. Well and tap water showed heavy faecal contamination with more than 1000 CFU/100 ml. The contamination of drinking water in Bissau due to poor construction, maintenance and improperuse ten years after the civil war, demonstrates the need to allocate resources after conflicts in the area of water and sanitation. Both should be included as a priority in post-conflict reconstruction programs in order to reduce cholera outbreaks and diarrhoea related mortality.

Source: Ask your librarian to help locate this item.

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Public

Exposure :

weather or climate related pathway by which climate change affects health

Food/Water Quality, Human Conflict/Displacement, Precipitation

Food/Water Quality: Pathogen

Geographic Feature:

resource focuses on specific type of geography

Urban

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Africa

African Region/Country: African Country

Other African Country: Guinea Bissau

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease, Injury

Infectious Disease: Foodborne/Waterborne Disease

Foodborne/Waterborne Disease: Cholera, Other Diarrheal Disease

Intervention:

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Children, Low Socioeconomic Status

Resource Type:

format or standard characteristic of resource

Research Article

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content